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PERSONALITY VARIABLES AND CAREER DECISIONS, A PILOT STUDY OF LAW AND SOCIAL WORK STUDENTS.

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PSYCHOLOGICAL AND SOCIOLOGICAL OCCUPATIONAL VARIABLES OF LAW AND SOCIAL WORK STUDENTS WERE IDENTIFIED AND MEASURED. THE JOB ANALYSIS AND INTEREST MEASUREMENT (JAIM), A SELF-DESCRIPTION INVENTORY DEVELOPED FROM STUDIES OF MATURE WORKERS, WAS GIVEN TO 495 FIRST OR SECOND YEAR STUDENTS AT FIVE SCHOOLS OF SOCIAL WORK AND 244 FIRST YEAR OR GRADUATE LAW STUDENTS AT GEORGE WASHINGTON UNIVERSITY. THE LAW STUDENTS ALSO TOOK THE LAW STUDENT QUESTIONNAIRE WHICH MEASURED STUDENT VALUES, ORIENTATIONS, PREFERENCES, AND ROLE CONCEPTS. THE JAIM COULD BE USED TO DIFFERENTIATE BETWEEN LAW AND SOCIAL WORK STUDENTS, AMONG SUBSPECIALTIES AND SCHOOLS, AND COULD ALSO MEASURE CHANGE DURING AN ACADEMIC YEAR. IT ALSO CORRELATED SIGNIFICANTLY WITH SCHOOL PERFORMANCE CRITERIA SUCH AS SCHOOL GRADES AND FIELD RATINGS. RESFONSES TO THE LAW STUDENT QUESTIONNAIRE ARE APPENDED. A STUDY OF THE CORRELATIONS BETWEEN JAIM AND LAW SCHOOL ADMISSION TEST SCORES AND BETWEEN JAIM AND 1965-66 ACADEMIC GRADES FOR THE LAW STUDENT SAMPLE IS PLANNED. (SK)

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PERSONALITY VARIABLES AND CAREER DECISIONS

A Pilot Study of Law and Social Work Students

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February, 1966

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Introduction

The purpose of this study is to test, through a pilot study of law and social work students, the usefulness of a research methodology related to the identification and measurement of psychological and sociological occupational variables. This methodology, a specific research approach containing theory and instrumentation, has evolved over a ten year period through a series of studies of mature workers in a wide variety of occupations and professions. More than 30 occupations and professions have been studied including ambassadors, business executives, Foreign Service officers, juvenile court judges, physcists, policemen, and engineers. In these studies it has been possible to differentiate between superior and weak performers within a job category and among superior performers in job categories; and to relate these empirical differences to a developing theory. The question to be explored is whether the same approach can be used profitably for the study of students entering a profession.

This paper reviews the significance of the study area, current decisional approaches to making career decision, and certain underlying research assumptions. Its concluding sections outline the study results to date and the prospects for future studies.

Significance of Study Area

The choice of an occupation or profession is an important decision both from the point of view of the individual making the choice and from the point of view of society. It is important to the individual that he choose work in which he is likely to be successful and can find a reasonable level of satisfaction. It is important to society that its human resources be used effectively. The identification of relevant occupational variables should prove useful as a means of improving decisions relating to career choice.

Current Decisional Approaches

Tests of knowledge, ability, and interest have been the most extensively used aids to the exercise of career options. Studies of the results achieved through these tests indicate that measures of knowledge and ability are useful in the establishment of minimum qualifications; but they usually cannot predict how well the individual will perform on the job after the basic knowledge and ability requirements are met. Such tests are more likely to be useful for indicating the possibility of failure than the probability of success.

Studies related to tests of interest have shown that a person's interest patterns appear to develop before he selects an occupation and tend to remain constant over the years. The Strong Vocational Interest Blank, in particular, has been used successfully to predict, on the basis of self reported interests, what occupation a person is likely to select and how satisfied he is likely to be with his choice. The usefulness of interest inventories has been limited, however, by their inability, for the most part, to predict the level of job performance. Research evidence indicates that interests and performance are not necessarily correlated. A person can be interested in something and not be able to do it well. Likewise a person can do well at something, at least for a time, and not particularly enjoy it. Over the long run, lack of satisfaction is likely to influence performance, but with strongly self-disciplined individuals it may not.

Because it has become apparent that knowledge, ability, and in most cases interests, are a necessary but not sufficient condition for actual performance, it is clear that other personal qualities have an influence on success or failure in an occupation or profession. It has commonly been observed that work failures often result not from lack of specific abilities or interests, but from "personality" variables. These complex qualities are often described in such terms as "can't stand pressure," "can't make decisions," "can't get along with people," and so on. Despite their importance, there is little evidence that the relevant variables have been identified and can be reliably measured through techniques currently in use such as interviews, reference checks, and reviews of application forms.

Personality Differentiation of Occupations and Professions

There is a mounting accumulation of research literature dealing with personality differentiation of occupational groups. Persons engaged in different occupations are characterized by distinctive personality patterns and sets of values. The cause-effect relationship of distinctive personal and occupational characteristics is largely unexplored. Salesmen, for example, tend to be extroverts. Is this because extroverts are drawn to this occupation or because the job molds individuals into extroverts? Both forces are probably operating to some degree. An individual's work environment is a distinctive sub-culture within the general culture of his society. In the development of a professional culture, values and behavioral norms become established which, through attraction or repulsion, formal and informal selections, and reinforcement patterns, produce

the profession's distincitve psychological climate. The adjustment of an individual to this climate consitutes a process of professional socialization.

Previous research by the author has shown that it is not sufficient to study jobs in isolation; on the contrary, research must consider the occupational or professional cultural contexts in which the job is embedded.

Research Assumptions

1. The most useful results are obtained when occupational or professional sub-cultures are studied as a unit.

As we have seen above there is an interaction between the qualities of the individual and the shaping influences of occupational or professional sub-cultures. The forces at work are: the attraction or repulsion of candidates, formal or informal selection standards, and reinforcement standards after the individual has entered the profession. To understand what is happening it is desirable to design the research so that the effect of each of these influences can be studied.

2. Parallel studies should be made of several occupations or professions using equivalent research methods.

Cultural norms and values are often very difficult to identify because they come to constitute unconscious premises for decision and action. Thus members of an occupation or profession are frequently unaware of many of their shared basic beliefs and assumptions. The simultaneous study of several occupations or professions helps to bring cultural idiosyncrasies into focus.

3. Useful results can be obtained through questionnaires completed by samples of persons meeting various occupational criteria.

The previous research has used a self-description questionnaire as the primary data collection method. This approach is more efficient in terms of costs and reliability than alternative approaches such as interviews, observations and case studies.

The Job Analysis and Interest Measurement

The research instrument being used to measure personality variables is the Job Analysis and Interest Measurement (JAIM) which was developed out of the research mentioned above and distributed by the Educational Testing Service for research purposes. It is based on

the assumption that elements influencing success, failure, and satisfaction in work must be studied in the interaction of personal and situational variables. The unit of analysis is a group of individuals found to be substantially interchangeable with respect to the performance of a particular type of work. The identification of common characteristics within performance groups allows the inference of both job requirements and worker qualifications in terms of some thirty variables; such as, orientations, work content preferences, interpersonal behavior, formal organizational behavior, and success criteria. Appendix B contains the definitions of the scales. Further information can be obtained from the JAIM manual.

Research with the JAIM has led to the conclusions that:

-Different jobs establish different behavioral requirements and provide different opportunities for personal satisfaction.

-Individuals differ in their behavioral styles, work preferences and success criteria.

-The degree of match between these individuals dimensions and the job crucially influences performance.

Both the present form of the JAIM and the instrument's theoretical results are beginning points that ongoing research will improve and extend. Other instruments will need to be developed, notably instruments to measure distinctive professional beliefs and perceptions and to secure biographical data, but it is anticipated that the JAIM will constitute the major research tool.

In previous research, it was found that the JAIM could be given to subjects to complete at their convenience without materially affecting the usefulness of the results. For example, in one study, it was mailed to Foreign Service officer candidates to be completed before they appeared for an oral examination. A sample of sixty-four from this group completed it again six months later, after they had been appointed to the Foreign Service. No statistically significant differences were found in the average scores for any of the scales.

Law Student Questionnaire

This questionnaire was developed in cooperation with the George Washington University Law School's Institute of Law, Criminology and Psychiatry. Its purpose is to determine law student's values, orientations, preferences, and role concepts as related to the practice of law. It is being used for the first time in this pilot study.

Appendix A contains the results obtained from using the questionnaire.

Description of Law and Social Work Student Samples.

Samples of law and social work students were studied with the JAIM. In addition, the law students completed the Law Student Questionnaire. The data for social work students was obtained by Mrs. Shirley D. McCune for use in a dissertation in partial completion of the requirements for the Doctor of Social Work degree at Catholic University. The characteristics of the two samples are described below.

The social work students were either first or second year students at five schools of social work: Tulane, Portland, Denver, Maryland, and Howard. All of the subjects completed the JAIM at the beginning of the academic year. The subjects from two of the schools of social work completed it again at the end of the academic year. Useable responses were received from four hundred ninety five subjects, or slightly more than eighty-five per cent of the students asked to participate.

The law students were either first year or graduate law students. The subjects were requested to complete the JAIM and the Law Student Questionnaire during the second month of the Fall Semester. The JAIM was completed by two hundred forty four subjects (129 undergraudates and 115 graduates) and the Law Student Questionnaire was completed by two hundred fourteen subjects (104 undergraduates and 110 graduates), a response rate of between fifty to sixty per cent of those who were asked to participate.

The following chart shows the distribution of the samples by age and sex:

	Age	Sex	
		Male	Female
Law Students	29.6	227	17
Social Work Students[1]	29.7	168	280

[1] Information on age and sex available on only 448 Subjects.

Ability of the JAIM to Differentiate between Law and Social Work Students

Table I summarizes the differences found between law and social work students. The average t value for the difference between means for thirty four scales was 6.62. Point biserial correlations were computed giving a value of 0 to social work and 1 to law. A multiple correlation co-efficient was then computed using a step-wise digital computer program through which independent variables are automatically deleted from the regression equation, one at a time, according to the statistical significance of its contribution to the prediction of the criterion. The multiple correlation co-efficient is recomputed after each deletion, and this continues until all beta weights are significant at the .05 level. By this method, a multiple correlation of .76 was found between law and social work students.

It will be noted that there are many more female social work students than female law students. Correlations were computed between JAIM scale scores and sex of subjects and three scales were found to have correlations above .20. Males were found to score higher on Self-Assertiveness and Mechanical Activities while females scored higher on Academic Achievement. In the multiple correlation equations distinguishing between law students and social workers, the Mechanical Activities scale did not have a significant beta weight while Self-Assertiveness and Academic Achievement both correlated positively with being a law student. From these results it is concluded that the sex of the subject did not to any substantial degree account for the difference between law and social work students in the JAIM scales.

Stability of JAIM Scales

An important problem which concerns the users of a self report inventory is the stability of the scales when used for different samples from the same population. The JAIM Manual reports a study of Junior Foreign Service officers showing that there was no significant difference between different classes of newly appointed officers who completed the JAIM shortly after entering on duty. In the present study a comparison was made between forty five first year students from the 1964-65 class and fifty four first year students from the 1965-66 class at one of the schools of social work. Over 90% of the two classes completed the JAIM shortly after the first semester started. The average t value for the difference between the means was .75 with the difference between means for only two of the thirty four scales being significant at the .05 level. The slight differences which were found might be accounted for by minor differences in selection standards or in the characteristics of the students who applied for admission during the two years.

TABLE I

JAIM Scale Differences, Law and Social Work Students, and Two Classes of Social Work Students

JAIM Scales	Social Work Students (N=488) vs Law Students (N=244) Correlations[1]	t Values[2]	1964 Class (N=45)[3] vs 1965 Class (N=54) t Values
1. Optimism	-.16***	-4.08***	.40
2. Self Confidence	.24***	6.34***	-.86
3. Perseverance	.17***	3.86***	1.65
4. Orderliness	.16***	3.25**	2.54*
5. Plan Ahead	.14**	4.00***	.25
6. Moral Absolutes	.11*	1.76	.47
7. Slow Change	-.07	-1.48	1.62
8. Persuasive Leadership	.40***	10.73***	-.08
9. Self Assertiveness	.41***	10.69***	.74
10. Move Toward Aggressor	-.28***	-7.62***	.16
11. Move Away	-.05	-.38	-.86
12. Move Against	.15***	2.95**	2.00*
13. Prefers Routines	-.23***	-5.47***	-.44
14. Authority	-.21***	-4.74***	.78
15. Independence	.19***	4.41***	-.41
16. Directive Leadership	.35***	9.99***	1.14
17. Participative	-.24***	-7.07***	-1.46
18. Delegative	-.14**	-3.48***	.94
19. Results	-.09*	-2.83**	.08
20. External Controls	.38***	10.43***	0
21. Systematical	.16***	3.69***	1.93
22. Problem Analysis	.41***	11.72***	.77
23. Interaction	-.24***	-6.33***	-.33
24. Mechanical	.17***	3.62***	1.70
25. Supervisory	.29***	7.16***	.17
26. Activity-Frequent	.22***	5.78***	.31
27. Participation	-.35***	-9.43***	.21
28. Status	.53***	17.12***	.38
29. Social Service	-.62***	-19.52***	.25
30. Approval	-.38***	-9.93***	-.26
31. Intellectual	.40***	13.00***	-.02
32. Standards	-.22***	-5.55***	-.08
33. Conformity	.09*	-2.10*	.90
34. Academic Achievement	.14**	4.57***	-1.34
Average		6.62	.75
Multiple Correlations	.76[4]		

[1] Point biserial correlations. The number of social work students was randomly reduced to 244 to provide an even split.

[2] A plus value means law students higher, a minus value social work students higher.

[3] Two first year classes of social work students.

[4] Only beta weights significant at the .05 level are included.

Probability levels: *=.05; **=.01; ***=.001.

Ability of the JAIM to Differentiate between Schools Training Students for the Same Profession

The possibility that students from schools with different concepts of teaching roles within a profession may differ was investigated. The school in the sample which was considered, a priori, to be unique in its educational philosophy was compared with three other schools considered to be traditional in their approach. Thirteen of the 34 scales showed significant differences which were consistent with the differences in educational philosophy. Table II summarizes these differences.

TABLE II

Students from one School of Social Work Compared on JAIM Scales to Those from Three Other Schools

First School Higher		Average of Three Schools Higher	
+***	Directive Leadership	+***	Optimism
+***	External Controls	+***	Social Interaction
+**	Intellectual Achievement	+***	Role Conformity
+**	Problem Analysis	+***	Participative Leadership
+*	Motivates by Knowledge of results	+**	Group Participation
		+*	Slow Change
		+*	Approval from others
		+*	Maintain Societal Stds.

Ability of the JAIM to Differentiate Among Sub-Specialties within the Profession of Social Work

Although it has been shown that professions tend to have a unity of norms and values which differentiate them from other professions, there usually are sub-specializations within the profession. This has been demonstrated in studies reported in the JAIM Manual, and again in a study of sub-specialties within the Foreign Service officer career.[1] Within the social work professions it has been noted that there are differences in the attitudes and behaviors of group and community workers as compared with case workers. Table III lists the differences between these two sub-specialties on JAIM scales. Twelve of the thirty-four scales show significant differences.

TABLE III

Comparison of Community and Group Workers with Case Workers

Community and Group Workers Higher (N=73)		Case Workers Higher (N=415)	
+****	Independence	+**	Prefers Routines
+****	Persuasive Leadership	+*	Slow Change
+****	Intellectual Achievement	+*	Academic Achievement
+*	Move against Aggressor	+*	Move away from Aggressor
+*	Self Confidence		
+*	Activity-Frequent Change		
+*	Supervisory Activities		

[1]See R. H. Walther "Orientations and Behavioral Styles of Foreign Service Officers" Foreign Affairs Personnel Study No. 5, (New York: Carnegie Endowment for International Peace, 1965).

Ability of the JAIM to Differentiate Among Sub-Specialties within the Profession of Law

Question T of the Law Student Questionnaire asked the law students to indicate whether they would like to specialize in or would prefer not to handle certain areas of professional practice. Significant differences were found between lawyers selecting or rejecting criminal law-defense, criminal law-prosecution, business-corporation representative, and juvenile court work. These results for juvenile court work were virtually identical to those obtained from an earlier study of juvenile court judges.[1] Table IV summarizes these results.

[1] See R. H. Walther and Shirley D. McCune, "Socialization Principles and Work Styles of the Juvenile Court: Goals for In-Service Training." (Washington, D. C.: The George Washington University, The Center for the Behavioral Sciences, 1965).

TABLE IV

JAIM Scores of Law Students Wanting to Specialise in Certain Areas Compared to those Preferring Not to Handle the Work

JAIM SCALE	JUVENILE COURT (N=25 vs 76)	CORPORATION LAWYER (N=78 vs 35)	DEFENSE ATTORNEY (N=35 vs 47)	PROSECUTING ATTORNEY (N=25 vs 76)
1. Optimism	+	0	0	+
2. Self Confidence	0	0	+**	+
3. Perseverance	0	+****	-	+
4. Orderliness	0	+**	-*	+
5. Plan Ahead	+	+	-	0
6. Moral Absolutes	0	0	-	+
7. Slow Change	+	+	-	0
8. Persuasive	-	0	+	+
9. Self Assertiveness	0	0	+**	+
10. Move Toward	+	-	-	-*
11. Move Away	+	0	-	0
12. Move Against	0	0	+	+*
13. Prefer Routines	0	0	-*	0
14. Authority	+	0	-	0
15. Independence	0	0	+**	0
16. Directive	-	+	-	+
17. Participative	+**	-	+	+
18. Delegative	-	-	-	-
19. Results	-*	-	+	+
20. External Controls	-*	0	0	0
21. Systematical	+	+*	0	-
22. Problem Analysis	-	0	0	-
23. Interaction	0	+	0	+
24. Mechanical	0	+	0	0
25. Supervisory	-*	+*	+	+***
26. Activity-Frequent	0	0	+*	+
27. Participation	+	0	+	+
28. Status	-***	+**	-	0
29. Social Service	+***	-**	+	0
30. Approval	+**	0	0	-
31. Intellectual	0	0	+**	0
32. Standards	+	-	+	+
33. Role Conformity	+	0	-*	-
34. Academic	-	+	-	+

Correlation of JAIM Scales with Performance Criteria

In the JAIM Manual, studies are reported showing significant correlations between JAIM scales and rate of promotion, supervisory ratings, turnover in jobs, promotion panel ratings, and oral selection panel ratings. In the present study JAIM scales were correlated with school grades, field work ratings, and score on ability tests for the social work student sample. "School grades" means the grade received by the social work student at the end of the academic year during which he completed the JAIM. The field work rating was the rating given him by his supervisor during his field service at hospitals, clinics, welfare agencies, etc., as part of his social work educational program. Both of these criteria can be expected to be unreliable, with the field work ratings being the least reliable. Factors which can be expected to contribute to unrealibility were that the subjects attended schools with different standards and were judged by many raters. Under these circumstances, any significant correlations can be considered encouraging.

The Miller Analogies Test and the Graduate Record Examination were taken prior to completing the JAIM as part of the admission procedure. The highest correlations were with the Verbal Sub-Test of the Graduate Record Examination with seventeen from the thirty four correlations being statistically significant. Table V summarizes the results for all the performance criteria.

The Measurement of Change

An important issue in the study of the "socialization of the professional" is the type and degree of change which occurs as a result of educational and training experiences. In an experiment to determine the usefulness of the JAIM for measuring change, it was administered to 182 students at two schools of social work at the beginning and end of the academic year. It has already been noted that the JAIM was completed twice by 64 Foreign Service officers with an interval of six to ten months between the two administrations. A comparison of the two sets of measurements showed no significant differences between earlier and later scale means. With this group there was no reason to expect change and the results support the assumption that, other things being equal, repeated JAIM measurements are stable.

As predicted, the intensity of the professional socialization experience was producing change and these changes were measured by the JAIM.

Table VI shows that significant changes were found on eleven of the thirty four JAIM scales for the measurements of social work students. Academic grades and field work ratings at the end of the 1964-1965 academic year when compared to the scale changes, generally indicated that the grades and ratings were reinforcing the change which occurred. The significant exception to this trend was the finding that self assertiveness and aggressiveness were negatively correlated with school ratings, yet students scored higher on these scales at the end of the adademic year. An obvious explanation is that other socialization factors are at work besides academic grades and field ratings.

Jaim Scores correlated with Performance Criteria

TABLE V

JAIM Scales	School Grades (N=317)	Field Work Ratings (N=214)	Miller Analogies Test Scores (N=106)	Graduate Record Examination Verbal (N=179)	Graduate Record Examination Quantitative (N=179)
1. Optimism	.13*	.03	.04	.05	-.10
2. Self Confidence	.19***	.15*	.11	.04	.08
3. Perseverance	.05	-.07	-.15	-.07	.01
4. Orderliness	-.10	-.17*	-.24*	-.21**	-.09
5. Plan Ahead	.15**	.12	-.06	.06	.11
6. Moral Absolutes	-.08	-.04	-.11	-.04	.11
7. Slow Change	-.15**	-.13	-.25**	-.20**	.04
8. Persuasive	.01	-.08	-.04	-.01	.07
9. Self Assertiveness	-.16**	-.11	-.02	-.29***	-.01
10. Move Toward	.08	-.10	.00	-.15*	-.15*
11. Move Away	.07	.22***	-.03	.23**	.09
12. Move Against	-.07	-.18**	.01	-.18*	-.07
13. Prefer Routines	-.19***	-.19**	-.06	-.28***	-.15
14. Authority	-.05	.01	.16	-.21**	-.15*
15. Independence	.17**	.17*	.10	.34***	.14
16. Directive	-.19***	-.02	-.14	-.14	.07
17. Participative	.08	.00	-.04	-.06	-.16*
18. Delegative	.10	-.01	.15	.22**	.18*
19. Results	.06	-.07	.28**	.13	.14
20. External Controls	-.13*	-.02	-.10	-.14	.03
21. Systematical	-.06	-.07	.10	-.04	.19**
22. Problem Analysis	.12	.01	.05	.03	-.02
23. Interaction	-.03	.06	.05	-.15*	.00
24. Mechanical	.03	-.13	.03	-.16*	.15*
25. Supervisory	-.06	-.02	-.11	-.19**	-.10
26. Activity-Frequent	.04	.04	.08	.04	.16*
27. Participation	-.10	.00	-.03	-.19**	-.09
28. Status	-.03	.05	-.14	-.06	.03
29. Social Service	.07	.00	.02	.00	.00
30. Approval	-.07	-.14*	-.06	.01	-.05
31. Intellectual	.24***	.12	.23*	.30***	.07
32. Standards	.07	.12	.08	-.05	.08
33. Role Conformity	-.19***	-.12	-.18	-.36***	-.19**
34. Academic	.30***	.09	.40***	.34***	.20**
Multiple Correlation	.49	.38	.64	.68	.50

TABLE VI

Changes in JAIM Scores During Academic Year As Related to School Rating (N=182)

	After vs Before Measurement[1]	Academic Grades[2]	Field Work Ratings[2]
1. Optimism	+	+*	0
2. Self Confidence	+***	+***	+*
3. Perseverance	+	0	0
4. Orderliness	-***	-	-*
5. Plan Ahead	0	+**	+
6. Moral Absolutes	-	-	0
7. Slow Change	-	-**	-
8. Persuasive	0	0	-
9. Self Assertiveness	+*	-	-
10. Move Toward	-	-	-
11. Move Away	-*	+	+***
12. Move Against	+*	-	-**
13. Prefers Routines	-*	-***	-**
14. Authority	-	0	0
15. Independence	+*	+**	+*
16. Directive	-*	-***	0
17. Participative	0	+	0
18. Delegative	+	+	0
19. Results	+	+	0
20. External Controls	-	-*	0
21. Systematical	-	-	0
22. Problem Analysis	0	+*	0
23. Interaction	+*	0	0
24. Mechanical	+	0	-
25. Supervisory	+	-	0
26. Activity-Frequent	+	0	+
27. Participation	+	-	0
28. Status	0	0	0
29. Social Service	+	+	0
30. Approval	-*	-	-*
31. Intellectual	+	+***	+
32. Standards	0	+	+
33. Role Conformity	+	-***	-
34. Academic	+*	+***	+

[1] A plus value means that the means score at the end of the academic year was higher and a minus value that the score at the beginning of the year was higher.

[2] Correlations converted to significance levels.

Comparison of Graduate and Undergraduate Law Students

A surprising finding was that there was no substantial difference in the JAIM scores of graduate and undergraduate law students. The only scale showing a significant difference was Activity-Frequent Change and, as might be expected, the younger undergraduate students scored higher. Very little difference was found between the responses of these groups to the Law Student Questionnaire (see Appendix A), which supports the assumption that the two populations may be very similar in their personality characteristics and values.

Responses to Law Student Questionnaire

The tabulation of the responses to this questionnaire is contained in Appendix A. Since this was the first time the questionnaire was used, many ways were found to improve it for future use. Interpretations of the results have to be treated with caution because the sample may not have been representative of the George Washington University law students. Comment has already been made on the finding that there was little difference between the undergraduate and graduate students. A few additional findings are summarized below.

Both the graduate and undergraduate students indicated that the aspect of legal practice which they themselves valued most highly was the intellectual challenge but that other students and practicing lawyers valued income potential most highly. Most of them thought that the insights and techniques of the behavioral sciences were of great practical value to the practicing lawyer and that the use of non-legal experts by the courts should be expanded. They were most interested in specialising in personal injury and corporation law and least interested in divorce and child custody law.

Summary

This paper reports the results of a pilot study of law and social work students using questionnaires to gather data. It was found that the JAIM, a self-description inventory developed from studies of mature workers, could be used to differentiate between law and social work students, among sub-specialties and schools and could also be used to measure change during an academic year. Finally, the JAIM was found to correlate significantly with school performance criteria such as school grades and field ratings.

A Law Student Questionnaire was prepared and tested on the sample of law students.

The next stage of this study will be to determine the correlations between JAIM and Law School Admission Test scores and between JAIM and 1965-1966 academic grades for the law student sample.

APPENDIX A

Response to Law School Student Questionnaire

A. At what age did you decide to pursue a career for which you needed training in the law.

Age	Undergraduate No.	Graduate No.	All No.
10 years and under	3	1	4
11 through 14 years	5	8	13
15 through 18 years	14	23	37
19 through 22 years	45	47	92
23 through 26 years	20	20	40
27 through 30 years	5	6	11
31 years and over	7	2	9
Unknown, blank	5	3	8
All	104	110	214

B. If you have close relatives who are or were lawyers, indicate their relationship to you.

Number of Relatives	Undergraduate No.	Graduate No.	All No.
One	15	26	41
Two	9	8	17
Three, or more	1	5	6
No response	79	71	150
All	104	110	214

B. If you have close relatives who are or were lawyers, indicate their relationship to you. (continuation)

Relationship	Undergraduate No.	Graduate No.	All No.
Father, Stepfather, Father-in-law	8	15	23
Uncle, granduncle	13	15	28
Cousins, Nephews	8	8	16
Siblings	2	12	14
Grandfather	5	4	9
Aunt	-	4	4
Sub total All	36	58	94
No response or none 1/	79	71	150
	115	187	244

1/ Totals reflect more than one lawyer relative for some subjects

C. What was the occupation of your father or guardian?

Occupation		Undergraduate No.	Graduate No.	All No.
Professions				
Lawyer, Judge		7	15	22
Physician, Dentist		4	8	12
Teacher, Minister, Social Worker		6	4	10
Chemist, Meteorologist, Naval Architect		2	1	3
Engineer		2	4	6
Public Service				
Military careerist		6	3	9
Civil Servant, City Employee		7	6	13
Businesses and Business Service				
Business in general		4	8	12
Executive, Manager, Specialist		9	6	15
Merchant, Manufacturer		8	8	16
Builder		3	1	4
Farmer, Rancher		9	3	12
Salesman, general		9	13	22
Salesman, real estate, insurance		1	4	5
Accountant, Bookkeeper, Clerk		4	5	9
Trades		8	13	21
Laborer		9	4	13
Unknown		-	2	2
	All	104	110	214

D. Where did you live for the longest period while you were growing up? What size community was it?

States of Longest Residence	Undergraduate No.	Graduate No.	All No.
States near G.W. University District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia	33	17	50
Southern States Alabama, Florida, Georgia, Louisiana, North Carolina, South Carolina, Tennessee	2	9	11
Northeastern States Connecticut, Maine, Massachusetts, New Jersey, New York	19	25	44
Midwestern States Illinois, Indiana, Iowa, Missouri, Ohio Arkansas, Oklahoma	10	15	25
Western States California, Colorado, Hawaii, Idaho, Michigan, Montana, Nebraska, Phillipine Islands	13	12	25
Foreign Countries Czechoslovakia, Cuba, India, Iraq Israel, Italy, Japan, Korea, South America	--	12	12
Moved a great deal, no place of extended residence	3	1	4
No response	24	19	53
All	104	110	224

Size of Community			
Less than 5,000	20	10	30
5,001 to 50,000	16	23	39
50,001 to 500,000	19	21	40
500,001 to 1,000,000	18	16	34
Over 1,000,000	25	30	55
No response	6	10	16
All	104	110	214

E. What was your undergraduate major?

Undergraduate Major	Undergraduate No.	Graduate No.	All No.
Education	3	2	5
Engineering	18	18	36
Government and Business	23	23	46
Law	--	6	6
Liberal Arts, Language	9	13	22
Physical Sciences, Mathematics	12	3	15
Social Sciences	39	40	79
No response	--	5	5
All	104	110	214

F. What academic degrees do you have

Degrees	Undergraduate No.	Graduate No.	All No.
A.B. only	51	--	51
A.B., M.S., or M.A.	9	2	11
A.B., Doctorate 1/	2	4	6
B.S. only	35	--	35
B.S., M.S. or M.A.	5	1	6
B.S., Doctorate 1/	1	7	8
LL.B. only	--	15	15
LL.B., A.B.	--	50	50
LL.B., A.B., advanced degrees	--	9	9
LL.B. B.S.	--	16	16
LL.B., B.S., advanced degrees	1	1	2
Miscellaneous		5	5
All	104	110	214

1/ plus perhaps a Master's degree

G. What professions other than law have you trained for?

Other Professions	Undergraduate No.	Graduate No.	All No.
Professions			
Medicine	2	--	2
Teacher, Psychologist, Library Specialist	7	11	18
Physical Sciences, Mathematics	6	3	9
Engineer	19	14	33
Public Service			
Military careerist	8	15	23
Civil Servant	5	2	7
Politics	2	1	3
Business and Business Services			
Banking, Economics	3	2	5
Manager, Administrator, Specialist	3	1	4
Salesman, general	1	2	3
Salesman, real estate	3	-	3
Accountant	3	8	11
Miscellaneous	3	4	7
None , no response	40	44	84
All	104	110	214

H. What other professions do you plan to train for?

Prospective Professions			
Professions			
Teacher, minister, library specialist	5	8	13
Physical Sciences, chemist	-	2	2
Public Service			
Military careerist	3	-	3
Civil servant	3	1	4
Politics	3	-	3
Business			
Business in general, economist	8	2	10
Management, Administration	5	-	5
Accountant	-	1	1
None, no response	77	96	173
All	104	110	214

I. What is the length of your work experience in jobs other than those used to support you while in school?

Length of Work Experience	Undergraduate No.	Graduate No.	All No.
0 to 1 years	45	22	67
1 to 3 years	29	19	48
3 to 5 years	14	15	29
5 to 10 years	11	24	35
over 10 years	5	28	33
No response	--	2	2
All	104	110	214

J. If you do not have an LL.B. degree, why did you enter law school?

Reasons for Entering Law School	Undergraduate No.
To qualify as a practicing lawyer	10
To get general professional training which I can use in many ways	63
To get training which will help me enter politics	10
To train for specialization in international law	4
To train for specialization in patent law	10
Other	15
No response	2
All	104

K. If you have an LL.B. degree, why did you enter graduate school?

Reasons for entering graduate school	Graduate
To enlarge the scope of my formal professional education	33
To obtain an advanced degree as a means of career advancement	26
To specialize in an area in which my law school did not offer a satisfactory program of courses	16
To specialize in area in which I became interested since graduation from law school	12
To gain needed information or skills through one or more subjects in a specific subject area	12
To obtain an advanced degree for the purpose of teaching	7
No response	4
All	110

L. Your objective in pursuing the study of law, as you presently view the future is:

Objective	Undergraduate	Graduate	All
To engage in individual practice	13	10	23
To enter a small firm	15	22	37
To enter a large firm	5	9	14
To enter legal department of corporation	9	8	17
To enter legal department of government agency	10	13	23
To teach law	--	11	11
To enhance career qualifications	5	10	15
To gain generally useful background	5	2	7
Employment uncertain, field of interest known	8	4	12
Unsure	33	17	50
No response	1	4	5
All	104	110	214

M. Your interests lead you toward Direction of Interests	Undergraduate No.	Graduate No.	All No.
General practice in specified area	25	19	44
Specialization in a named field	41	77	118
Using law as background for other work	35	12	47
No response	3	2	5
All	104	110	214

Areas of Practice and Specialization

Administrative, Law, Government and Government Specialties	3	23	26
Admiralty Law	-	4	4
Anti-trust, Trade Regulation	3	6	9
Arbitration	-	2	2
Business, Corporation, Estate, Taxation	19	39	58
Civil trial work, Domestic Relations, Torts	8	9	17
Constitutional Law	-	2	2
Criminal trial work	6	10	16
International Law	8	19	27
Patents, Trademarks	15	13	28
Other specialties - Aviation, Labor, Medical, Mental Health, Military, Natural Resources, Transportation, Urban, Veteran	9	8	17
All 1/	71	135	206

1/ Total reflects plural interests where evident.

N. The aspects of law practice that you find most appealing are: rank in order of preference from 1 to 7, i.e., 1 - most appealing...7 - least appealing.

	Rank							
Undergraduates:	1	2	3	4	5	6	7	NR
Its prestige	6	10	17	16	25	11	11	8
Its intellectual challenge	38	21	15	11	5	6	5	3
Opportunity it affords to help others	16	15	17	17	11	10	11	7
Its income potential	16	21	14	15	14	13	5	6
Satisfaction of prevailing	9	5	12	17	21	22	10	8
Contribution to civilized order	19	17	11	14	12	14	10	7
Being a member of a profession	4	7	8	8	9	17	42	9
All All	108	96	94	98	97	93	94	48
Graduates:								
Its prestige	6	14	16	15	15	22	11	11
Its intellectual challenge	49	15	15	9	3	2	3	14
Opportunity it affords to help others	8	20	16	17	15	15	4	15
Its income potential	11	16	13	12	17	13	12	16
Satisfaction of prevailing	12	8	13	21	11	20	10	15
Contribution to civilized order	13	16	13	9	7	14	23	15
Being a member of a profession	6	6	8	15	24	8	29	14
All	105	95	94	98	92	94	92	100

Mean Rank Values

	Undergraduates	Graduates
Prestige	3.7	3.8
Challenge	5.1	5.8
Opportunity	4.5	4.4
Income	4.5	4.0
Satisfaction	3.5	3.6
Contribution	4.3	3.8
Profession	2.6	3.1

O. The aspect of legal practice that seems to be most highly valued by other students in your class is:

	Undergraduates No.	Graduates No.	All No.
Its prestige	19	23	42
Its intellectual challenge	16	13	29
The opportunity it affords to help others	6	4	10
Its income potential	28	31	59
Satisfaction of causing client's position to prevail	3	2	5
Legal system's contribution to civilized order	8	-	8
Being a member of a profession	8	5	13
No response	16	32	48
All	104	110	214

P. The aspect of legal practice that seems to be most highly valued by members of the practicing bar is:

	Undergraduates No.	Graduates No.	All No.
Its prestige	13	11	24
Its intellectual challenge	11	6	17
The opportunity it affords to help others	4	7	11
Its income potential	28	24	52
Satisfaction of causing client's position to prevail	8	17	25
Legal system's contribution to civilized order	11	5	16
Being a member of a profession	5	11	16
No response	24	29	53
All	104	110	214

Q. Your law school experience has tended to make you:

More idealistic	11	18	29
Less idealistic	20	41	61
Neither of the above	73	45	118
No response	-	6	6
All	104	110	214

R. The insights and techniques of the behavioral sciences (psychology, psychiatry, sociology, anthropology, etc.) are:

Value of Behavioral Sciences	Undergraduates No.	Graduates No.	All No.
Of little practical value to the practicing lawyer	2	5	7
Of some practical value to the practinging lawyer	30	35	65
Of great practical value to the practicing lawyer	65	60	125
Unsure	2	3	5
All	104	110	214

S. A lawyer's principal obligation is:

Lawyer's Principal oblication			
To obtain results desired by the client within the bounds of professional ethics	49	41	90
To assist the client to a rational choice among possible courses of action	32	42	74
To serve the court by advising of the merits of the client's case	1	7	8
To effect a desirable social result	13	16	29
Other	3	2	5
Unsure	2	-	2
No response	4	2	6
All	104	110	214

T. The quality of my interest in the areas of professional practice listed below (assuming I were engaged in the private practice of law) would be: (for each area listed on the left, appropriately check a column to its right).

Column 1 - Would like to specialize in
Column 2 - Willing to handle
Column 3 - Would prefer not to handle
Column 4 - Would refuse to handle
Column 5 - Unsure

Undergraduate

	1	2	3	4	5	NR
Personal injury	16	67	14	2	2	3
Divorce	6	45	32	13	5	3
Child Custody	5	43	41	5	6	4
Hospitalization & Guardianship of the Mentally Ill	3	50	30	8	9	4
Juvenile Court	7	59	24	4	6	4
Criminal Law- Prosecution	16	44	29	7	4	4
Criminal Law - Defense	21	55	15	4	5	4
Labor Law - Company Counsel	19	46	24	6	6	3
Labor Law - Union Counsel	9	45	32	6	8	4
Labor Law - Counsel for either party	11	47	24	5	11	6
Business - Corporate representation	35	35	18	3	9	4
Other	25	6	3	1	2	67
All	173	542	286	64	73	110

Graduate

	1	2	3	4	5	NR
Personal injury	22	50	25	4	2	7
Divorce	1	49	41	8	4	7
Child Custody	3	46	42	8	3	8
Hospitalization & Guardianship of the Mentally Ill	8	45	34	10	5	8
Juvenile Court	7	51	32	8	4	8
Criminal Law - Prosecution	9	51	33	7	3	7
Criminal Law- Defense	14	58	21	7	2	8
Labor Law - Company Counsel	6	51	27	10	4	12
Labor Law - Union Counsel	7	41	36	11	3	12
Labor Law - Counsel for either party	7	45	29	8	6	15
Business - Corporate representation	42	41	8	5	3	11
Other	40	12	1	1	2	54
All	166	540	329	87	41	157

T. The quality of interest in areas of professional practice (continuation)

	Mean Attraction Value	
	Undergraduate	Graduate
Personal injury	1.9	2.1
Divorce	2.3	2.6
Child Custody	2.4	2.6
Hospitalization & Guardianship of the Mentally Ill	2.4	2.5
Juvenile Court	2.3	2.4
Criminal Law - Prosecution	2.3	2.4
Criminal Law - Defense	2.0	2.2
Labor Law - Company Counsel	2.1	2.4
Labor Law- Union Counsel	2.3	2.5
Labor Law - Counsel for either party	2.3	2.4
Business - Corporate representation	1.9	1.8
Other	1.4	1.3

U. Utilization of non-legal experts (social workers, marriage counselors, expert witnesses, etc.) by the courts should be:

Use of Non-legal experts	Undergraduate No.	Graduate No.	All No.
Expanded	50	55	105
Remain about as it is	21	30	51
Reduced	1	7	8
Unsure	26	14	40
All	104	110	214

V. Law school teaching should emphasize: (rank in order of importance from 1 to 6; i.e., 1 - most important... 6 - least important

Undergraduates	1	2	3	4	5	6	NR
The practical aspects of law practice	20	20	19	26	6	2	11
Professional ethics	6	14	22	30	14	6	12
Preparation for the bar examination	3	9	17	10	20	33	12
Development of proficiency in analytical reasoning	56	17	10	8	4	2	7
The historical development of law	1	2	11	9	31	40	10
The role of law in society, emphasizing the prespectives of other disciplines	12	31	14	10	17	9	11
All	98	93	93	93	92	92	63

V. Continued
Law School teaching should emphasize: (rank in order of importance from 1 to 6; i.e., 1 - most important... 6 - least important

Granduates	1	2	3	4	5	6	NR
The practical aspects of law practice	20	25	18	11	20	10	6
Professional ethics	8	12	19	37	19	7	8
Preparation for the bar examination	9	5	10	15	15	47	9
Development of proficiency in analytical reasoning	55	22	14	3	5	2	9
The historical development of law	5	15	14	18	23	25	10
The role of law in society emphasizing the perspectives of other disciplines	17	20	25	14	19	6	9
All	114	99	100	98	101	97	51

Mean Importance

	Undergraduates	Graduates
Practical aspects	3.2	3.2
Professional ethics	4.0	3.2
Bar Examination preparation	5.0	4.6
Reasoning Proficiency	1.9	1.9
Historical Development	5.0	4.1
Social Role	3.6	3.2

W. As a result of your law school experience, your attitude towards legal practice has:

	Undergraduate No.	Graduate No.	All No.
Changed materially	6	34	40
Not changed materially	35	68	103
Have not yet had significant law school experience	58	2	60
No response	5	6	11
All	104	110	214

X. If number one is checked above, what was the most significant change in attitude effected by your law school experience.

Change in Attitude	Undergraduate No.	Graduate No.	All No.
Gained respect, liking, appreciation for law and lawyer in general	1	6	7
Gained appreciation of social, political and economic ramifications of law	1	8	9
Gained appreciation of law as an intellectual discipline	-	5	5
Disappointed by law and lawyers	3	4	7
Changed emphasis of legal interest	1	4	5
Personal analytic improvement	-	1	1
No comments	-	6	6
All	6	34	40

Y. In general, my law school experience has been:

	Undergraduate	Graduate	All
Most satisfactory	26	47	73
Satisfactory	42	50	92
Unsatisfactory	3	6	9
Have not yet had significant law school experience	28	1	29
No response	5	6	11
All	104	110	214

Z. List any other comments you may have about your law school experience

	Undergraduate No.	Graduate No.	All No.
Number of Individuals commenting	25	31	56
Comments critical of, or suggesting improvement in:			
Teachers	6	5	11
Grades, Schedules	1	3	4
Curriculum	9	23	32
General appreciations of profession and of school	7	5	12
Individualized reflections	3	2	5
All comments 1/	26	38	64

1/ Some students made plural comments

Examples of Comments

Teachers

From an undergraduate: "The quality of instructors and their choice of subject matter for the 3 sections of the first year varies so much that is will be impossible for some students to obtain adequate grounding in the basic courses. I am not for conformity per se, but for God's sake have them teach something. Other comments: "...would like to see more personal attention shown"; "...many professors are too liberal."

Z. continued

From a graduate: "...30% of the teachers...cannot teach, 50% have been excellent." Other comments "...must (instructors) would benefit by considering methods for improving their instruction;" "I found study interesting but class lethal."

Grades, Schedules

From an undergraduate: "It amazes me how some of my lower friends have graduated - requirements must vary."

From a graduate: "Too much emphasis on grades, i.e., averages to nearest 1/100 of a point," Other comment: "Grades should be based on a series of examinations and problems rather than upon a final examination alone."

Curriculum

Practicality, realism

From an undergraduate: "...wonder if some of the...irrelevant items (e.g.,...actions that went out with the invention of the wheel) could not be junked."

From a graduate: "More time should be devoted to how to settle, present a case, etc. ...I learned more in Smith's Bar review (long course) in more useable form than in last year of law school." Other comments: "...bar review course should be incorporated into law school courses;" "...need more emphasis on the practical handling of cases."

Change in emphasis

From an undergraduate: "Case method has caused me to lose interest quickly - work load and number of cases...leave little time to think or review." Other comments: "...not enough intellectual exercise - improve or remove legal method course;" "...small discussion groups would stimulate students, as would practical demonstrations of legal procedures, lectures by practicing lawyers."

From a graduate: "There should be more required writing - I wrote one paper in four years at night school and one paper while on law review. A lot more writing would have done me a lot of good." Other comments: "...day and night student would derive great benefit from participation in Law Review writing and research..." "...should require more oral participation from students ... more training and experience in legal oral arguments."

2. continued

Changes in organization

From a graduate: "I believe the study of law should be a four year, 120 credit hour, course." Other comments: "...would like to see the inclusion of a legal internship program;" "...would like to see a fourth year added...and more rigid elimination in freshman year of students without proper regard or personality traits for observing professional ethics."

Appreciations

From an undergraduate: "I have gotten more in the way of quantity of intellectual challenge (in the last eight weeks) than I did in 4 years of undergraduate work."

From a graduate: "Stimulating every day - more so than either college or graduate school."

Individualizations

From an undergraduate: "It's hard as hell at night."

From a graduate: "I would have enjoyed it considerably if I hadn't had to work my way through.

***

Finally, we would appreciate any comments you might have on how this questionnaire might be improved

Comments

Undergraduate	Graduate	All
5	9	14

APPENDIX B

Definitions of the Scales of the Job Analysis and Interest Measurement

A. Attitudes

1. Optimism

This scale measures the degree to which the individual assumes that the intentions of other people are benevolent and that satisfactions can be expected in the natural course of events. Persons scoring high consider themselves lucky; never or seldom left out of things in group activities; and almost always have had supervisors who praised them and gave them credit for work well done.

It was found to correlate positively with the Q sort based on comparison between rating with ideal rating (.56) and the Edwards Affiliation scale (.42), and negatively with the MMPI Social Isolation (-.55) and Depression (-.54) scales. Foreign Service secretaries, Peace Corps volunteers and social workers scored high on it and patients committed to a mental institution for criminal acts scored very low.

2. Self Confidence

This scale measures the degree to which the individual believes that he can, by his own action, influence future events. Persons scoring high on this scale report that they often become enthusiastic over new things or new plans; that their ideas are often considered unusual and imaginative; and that they work well under stress. Individuals scoring low report they get away by themselves when they are troubled; and that they do not perform well under stress.

It should be noted that the Optimism and the Self Confidence scales do not always correlate. Some individuals score about the same on both. Other individuals, however, score high on one and average or low on the other. Self Confidence was found to correlate positively with a Q sort based on a comparison between self ratings and ideal ratings (.50), and negatively with the Edwards Abasement (-.59) and the MMPI Social Isolation (-.48) scales. Presidents of business corporations scored highest among all the occupations studied and police patrolmen scored lowest.

3. Perseverance

This scale measures the degree to which the individual keeps at something even when he is not particularly interested in it. Persons scoring high say that when working on a hobby, they concentrate for long periods of time and complete each project they start; that they do not tire easily and can work long and steadily; and that other people seldom find something after they have tried and given up. Individuals scoring low say that when they have something to do that doesn't interest them, they either do it after considerable pressure is put upon them or they seldom get around to doing it.

In the one study in which this scale was used, police patrolmen were found to score significantly higher than welfare workers.

4. Orderliness

This scale measures the degree to which the individual has internal standards which he follows. Persons scoring high say that they like work which requires them to be extremely accurate; that they are usually orderly; and that they get up about the same time each morning and do not like to stay in bed later than their getting up time.

It was found to correlate positively with the Study Habits scale (.44). Engineers scored high on it and social workers scored low.

5. Plan Ahead

This scale measures the degree to which the individual is a self-starter and directs his own activity toward goal achievement. Persons scoring high say that they get best results when they establish long-range goals and follow them as much as they can; and that they are generally striving to reach some goal they have established for themselves.

No data is available regarding the correlations between this scale and scales from other instruments or how different occupations or professions score on it.

6. Moral Absolutes

This scale measures the degree to which the individual believes in moral absolutes. Persons scoring high believe that moral principles come from an outside power higher than man; and that it is most important to have faith in something. Individuals

scoring low believe that moral principles are not absolute and unchanging but depend upon circumstances.

Juvenile court judges and police youth officers scored significantly higher than social workers and Foreign Service officers.

7. Slow Change

This scale measures the degree to which the individual believes that change should be slow. Persons scoring high say that it is usually best to do things in a conventional way; and that when things are going smoothly it is best not to make changes which will disrupt things. No data is yet available about how this scale correlates with scales from other instruments or how different occupations or professions score on it.

B. Interpersonal Behavior

8. Persuasive Leadership

This scale measures the degree to which the individual exerts leadership in interpersonal situations. Persons scoring high report that they have no difficulty giving a speech or reciting before a large group; that they often take the leadership in groups; and that they like best in a job the opportunity to get results through persuasion or negotiation.

It correlated positively with the Edwards Dominance (.59) and the MMPI Hypomania (.44) scales and negatively with the MMPI Social Isolation (-.43) and the Edwards Abasement (-.42) scales. Presidents of business corporations, juvenile court judges and Foreign Service officers scored high on this scale and Foreign Service code clerks and police patrolmen scored low.

9. Self-Assertiveness

This scale measures the degree to which the individual tends to pursue his own goals when they are in competition with the goals of others. Persons scoring high say that it is important to avoid being diverted from doing what is right in order to please someone; that they do better under competition or stress; and that they are proficient in athletic games.

It correlated positively with the Kuder Outdoors (.41) and the MMPI Hypomania (.37) scales, and negatively with MMPI Masculine-Feminine scale (-.47). Presidents of business corporations were very high on this scale.

10. Move Toward Aggressor

This scale measures the degree to which the individual tries to "pour oil on troubled waters" when someone acts toward him in a belligerent or aggressive manner. Persons scoring high say that when a person behaves toward them in a dictatorial or domineering fashion, they try to win him over.

It did not correlate significantly with scales from other instruments which were studied. Juvenile court judges, and welfare workers scored high and patients committed to a mental institution for criminal acts scored low.

11. Move Away from Aggressor

This scale measures the degree to which the individual withdraws when someone acts toward him in a belligerent or aggressive manner. Persons scoring high say that when a person acts toward them in a dictatorial or domineering fashion, they keep away from him if they can.

It correlated positively with the Edwards Abasement (.45) and the MMPI Social Isolation (.37) scales, and negatively with the Edwards Dominance (-.46) and Aggression (-.43) scales and the MMPI Hypomania scale (-.41). Foreign Service Code clerks scored high on this scale and business executives low.

12. Move Against Aggressor

This scale measures the degree to which the individual counterattacks when someone acts toward him in a belligerent or aggressive manner. Persons scoring high say that when someone crowds ahead of them in line, they do something about it; and if someone acts toward them in a dictatorial or domineering fashion, they seek an occasion to have it out with him.

It correlated positively with the Edwards Aggression scale (.52), and negatively with MMPI Lie (-.44) and the Edwards Abasement (-.42) scales. Business executives and police patrolmen scored high on this scale and Foreign Service secretaries and code clerks scored low.

C. Formal Organization Behavior

13. Prefer Routines

This scale measures the degree to which the individual likes to have definite procedures available which he can follow. Persons scoring high say they like to have a clear cut written guide line

or manual which tells them clearly what they are supposed to do.

It correlated positively with the Edwards Deference scale (.51) and negatively with the Edwards Autonomy (-.45) and the Otis Test of Mental Ability (-.42) scales. Foreign Service code clerks and police patrolmen scored high on this scale and Foreign Service officers and Episcopal ministers scored low.

14. Identified with Authority

This scale measures the degree to which the individual identifies with his superior and tries to please him. Persons scoring high say that they like to work closely with, and be of help to, a superior doing important and interesting work; that their supervisors, for the most part, have always been helpful and understanding; that they received high grades while in high school and that they were either obedient toward or tried to please their parents as an adolescent.

It correlated positively with the Edwards Deference (.44) and Study Habits (.44) scales, and negatively with the Edwards Autonomy (-.51) and MMPI Psychopathic Deviate (-.34) scales. Foreign Service secretaries consistently score high on this scale and in several studies it has been found to be the best predictor of performance for this occupational group. On the other hand, patients committed to a mental hospital for criminal acts scored low.

15. Independence

This scale measures the degree to which the individual likes to act on his own. Persons scoring high say they were independent toward their parents during adolescence; that they have no fixed pattern for getting up in the morning and sometimes get up early and sometimes sleep late; and that it is most important to teach children to be self reliant.

It correlated negatively with the Q sort based on a comparison between self ratings and ideal ratings (-.41). Foreign Service officers scored high on this scale and policemen scored low.

16. Directive Leadership

This scale measures the degree to which the individual believes that an executive gets the best results by making decisions himself. Persons scoring high say that an effective supervisor assigns each subordinate a specific job to do and sees that he does it the way it is supposed to be done.

It correlated negatively with the Kuder Literary Scale (-.41). Business executives and police patrolmen scored high on this scale and social workers scored low.

17. Participative Leadership

This scale measures the degree to which the individual believes that executives get best results by having the work group participate in decision making. Persons who score high say that it is most important that a supervisor develop a strong sense of responsibility in the work group as a whole.

In one study it was found that social workers scored high on this scale and police patrolmen scored low.

18. Delegative Leadership

This scale measures the degree to which the individual believes that the executive gets best results by delegating decision making authority as much as possible to individual workers. Persons scoring high say that to the extent practical, an effective supervisor permits each subordinate to do the work the way he finds works best for him.

Foreign Service officers and social workers scored high on this scale while policemen scored low.

19. Motives by Knowledge of Results

This scale measures the degree to which the individual believes that people are motivated best by knowledge of results (intrinsic motivation). Persons scoring high say that a supervisor gets the best results from his work group when he shows the employees the importance of their work. Persons scoring low say a supervisor gets the best results through rewards or punishment (extrinsic motivation).

On one study it was found that social workers scored highest on this scale and juvenile court judges scored low.

20. External Controls

This scale measures the degree to which the individual believes that most people require external controls. Individuals scoring high say that most people prefer a supervisor who tells them clearly what to do; and believe that parents get the best results when they maintain strict discipline.

It correlated positively with the MMPI Hypomania scale (-.33). Business executives and police patrolmen scored high on this scale and social workers scored low.

21. Systematical-methodical

This scale measures the degree to which the individual uses systematic-methodical methods for processing information and reaching decisions. Persons scoring high believe that when they have a difficult decision to make and feel that they have enough facts that it is best to spend considerable time reviewing all possible interpretations of the facts before making a decision; they prefer the opportunity for careful consideration of all aspects of the problem and when they have an important problem to consider, they prefer to think it through alone.

It correlated positively with the Edwards Abasement (.51) and the Mathematics part of the co-operative General Culture Test (.50), and negatively with the Edwards Dominance (-.57) and the Q sort based on a comparison between self ratings and ideal ratings (-.49). Engineers and fiscal officers scored high on this scale and personnel officers scored low.

D. Work Preferences

22. Problem Analysis

This scale measures the degree to which the individual likes to analyze situations and develop ingenious solutions to problems. Persons scoring high prefer to be considered ingenious; like to develop new ideas and approaches to problems and situations; and like a job which permits them to be creative and original.

It correlates positively with the Edwards Autonomy scale (.54) and with the Reading Comprehension part of the Ohio State University Psychological Examination (.51). Management interns with the U. S. Government scored high on this scale and police patrolmen low.

23. Social Interaction

This scale measures the degree to which the individual likes work involving interactions with people. Persons scoring high attend parties or social gatherings once a week or oftener; do not like to work apart from other people; frequently entertain groups at home; and enjoyed participation in social affairs while in high school.

It correlated positively with the Edwards Affiliation scale (.61) and negatively with the MMPI Sound Isolation scale (.52). Personnel officers scored high on this scale and engineers low.

24. Mechanical Activities

This scale measures the degree to which the individual likes mechanical activities. Persons scoring high on this scale say they are reasonably skilled craftsmen and enjoy fixing things; like making things with tools; and like hunting and fishing.

It correlated positively with the Kuder Mechanical Scale (.70) and negatively with the MMPI Masculine-Feminine scale (-.58). Engineers scored high on this scale and Foreign Service secretaries low.

25. Supervisory Activities

This scale measures the degree to which the individual likes to plan and supervise the work of other people. Persons scoring high on this scale find that they get along best when they know what they want and work for it; they are generally striving to reach some goal they have established for themselves and like to supervise others in the carrying out of difficult assignments.

Business executives scored high on this scale and Foreign Service officers low.

26. Activity-Frequent Change

This scale measures the degree to which the individual likes to be actively engaged in work providing a lot of excitement, and a great deal of variety. Persons scoring high on this scale say they frequently enjoy taking part in a fight for good causes, sometimes enjoy dangerous situations; work best under a great deal of pressure and tight deadlines; and prefer a job in which there is a great deal of activity and opportunity to make frequent decisions. Persons scoring low like to finish one task before starting another.

It correlated positively with the MMPI Hypomania (.43) and the Edwards Dominance (.42) scales, and negatively with the Edwards Abasement (-.52), Interspection (-.49), and the MMPI Social Isolation (-.35) scales. The presidents of business corporations scored high on this scale and the Foreign Service code clerks low.

27. Group Participation

This scale measures the degree to which the individual identifies himself with a highly valued group. Persons scoring high say

they like best to work as a member of a group and do not like to work apart from other people.

Social workers were found to score significantly higher than lawyers.

E. Values

28. Status Attainment

This scale measures the degree to which the individual values himself by his achievement of the status symbols established by his culture. Persons scoring high on this scale prefer to be considered ambitious and successful; like to have a job which is recognized to be important or desirable; and think that the ideal job is one which shows they were a success and had achieved high status and prestige.

It correlated negatively with the Edwards Nurturance scale (-.51). Presidents of business corporations scored high on this scale and Peace Corps volunteers scored low.

29. Social Service

This scale measures the degree to which the individual values himself by contributing to social improvement. Persons scoring high like to be considered understanding and charitable; consider the social usefulness of the work to be important, and like work which permits them to be helpful to others.

It correlated positively with the Edwards Nurturance (.40) and Kuder Social Service (.33) scales. Social workers and juvenile court judges scored high and business executives low.

30. Approval from others

This scale measures the degree to which the individual values himself by obtaining the approval of others. Persons scoring high consider it most important to have congenial co-workers; to be well liked; and like to please others through their work; and like to be considered gracious, attractive and pleasant.

It correlated positively with the Edwards Affiliation scale (.54) and the Kuder Clerical (.46) and Social Service (.43) scales, and negatively with the Kuder Outdoor (-.50), Scientific (-.44), and Mechanical (-.43) scales, and the Edwards Achievement scale (-.44). High school counselors and social workers scored high on this scale and engineers scored low.

31. Intellectual Achievement

This scale measures the degree to which the individual values himself through his intellectual attainments. Persons scoring high like work which permits them to be creative and original; like to be considered ingenious, imaginative, intelligent, and brilliant; and believe that it is important to be intelligent and resourceful as opposed to having faith in something, or being kind and considerate.

It correlated positively with the Edwards Dominance scale (.42) and the Co-operative General Culture Test (.40) and negatively with the Kuder Clerical scale (-.42). Foreign Service officers and management interns scored high on this scale and code clerks and policemen scored low.

32. Maintain Societal Standards

This scale measures the degree to which the individual values himself by helping to maintain standards established by the society of which he is part; persons scoring high say that it is important in their work to have the opportunity to apply professional standards; that when someone makes a grammatical mistake, he should be corrected so that he knows what is right; and that competent co-workers are important to them in a job.

No data is available regarding the correlations between this scale and scales from other instruments. Nurses and social workers scored high on it and Foreign Service officers scored low.

33. Role Conformity

This scale measures the degree to which the individual values himself according to how successfully he has conformed to the role requirements of the society. Persons scoring high say that they prefer to be considered reliable, dependable, trustworthy, and industrious.

No data is available regarding the correlations between this scale and scales from other instruments. Policemen scored high on this scale.

F. Other

34. Academic Achievement

This scale measures the degree to which the individual does well in academic situations. Persons scoring high on this scale received excellent grades in high school and were honor students in college; and report that they are at their best during a written examination.

It correlated positively with the General Ability sub-test of the Foreign Service officers Examination (.49), the Science sub-test of the co-operative General Culture Test (.60) and Reading Comprehension sub-test of the Ohio State University Psychological Examination (.54). Research engineers, management interns, and Foreign Service officers scored highest and policemen scored lowest.